Assignments: Descriptions

Persuasive Memo ***1-2 pages, 10% of course grade***
Use the information in the case study to argue for the purchase of a new lyophilizer. Keep in mind Dr. Greene's perspective and values; you'll need to provide support for each of your claims regarding the purchase, offer sufficient information to enable him to understand your requirements, and incite him to act immediately.

Position Paper ***3-8 pages, 15% of course grade***
Your task in this assignment is to offer a coherent, well-developed, and persuasive stance on an issue of your choice. You should demonstrate understanding of opposing views, to show that you are knowledgeable and to convince an opposition to change their minds. Despite its name, a position paper of this sort does not merely state a position; rather, it offers compelling reasoning and evidence to persuade people to agree with its premises.

Proposal Portfolio **5-*10 pages, 20% of course grade***
Consider using this assignment to accomplish a practical professional or academic goal. You may, for example, choose to write a formal grant application, request permission to do a research project, or propose a change in a laboratory work situation. If you have no specific task you'd actually like to accomplish, you can request a case study. The proposal portfolio should contain a proposal (3-8 pages) as well as a resume and cover letter (2-3 pages).

Research Report ***6-10 pages, 20% of course grade***
All research papers should include an abstract and appropriate documentation. You may write one of the following types of papers to fulfill this assignment:

1) Research article
You'll need to write a paper based on original research, following the conventions of a particular journal or standard format as described in The Mayfield Handbook and the course materials. Besides discussing your own original findings, you'll need to demonstrate an understanding of related research that has been published in appropriate journals. If you have no original research to discuss, please select a different option.

2) Review paper
Review papers offer comprehensive evaluation of a field of research, so you'll need to focus your topic so you can do a fair job of covering the published research in the area you select. When professionals write review papers, they usually read *all* the published literature on the topic, and then they select 30-50 of the most pertinent articles to cite in their review. As students, you will only be expected to read and discuss 5-10 papers, though you may use more if you choose.

3) Argumentative research paper
This paper is an expanded version of the position paper. You will select a scientific or technical controversy, explain all the relevant views, and argue for the value and validity of your particular perspective. Your sources for this paper can include popular as well as scientific sources, from magazines to interviews to peer-review journal articles.